

DETAILS OF ELECTRICAL DEPARTMENT

CADRE POSITION

Cadre	SS	MOR	Total Vac.	Total Vac %
TRD	350	248	102	29.14
OSM	241	192	49	20.33
TL-AC	219	196	23	9.13
Ministerial	36	14	22	61.11
TOTAL	846	650	196	23.16

Activities of Electrical Department

Electrical department of Solapur Division plays vital role to fulfill the requirement of commuters & Railway employees.

Electrical Department caters following services:

- A. Out station maintenance service
- B. Train lighting & Air conditioning.
- C. Traction distribution maintenance work.
- D. Co-ordination with executing agencies for Railway electrification in
 - 1) RVNL/ RE/ PA for electrification of MO-DUD section,
 - 2) RE/SC for electrification of KWV-LUR section.
 - 3) Construction /Pune for upcoming doubling of KPG-DD section.
- E. Monitoring of electric loco hauled train movement (TRO).
- F. Monitoring work of commissioning of ELS DD Loco shed carried out by IRCON.
- G. Co-ordination with RVNL/SC for general power supply arrangements for construction of Latur Metro coach factory.

Out station maintenance service:

Activities covered are to get supply from various supply authorities & provide various Railway stations, service buildings, Railway quarters, Pump house & maintenance/upkeep of lifts, escalators etc. Entire Solapur Division is being covered for maintenance with 06 depots which are asunder.

1. Ahmednagar, 2. Daund, 3. Kurduwadi, 4. Solapur, 5. Kalburagi, 6. Wadi.

Items	Nos.	Location
22 KV Sub Stations	05	Daund- Power house -1, DD F type -1, DD Hanuman Mandir-1 , DD C&W-1, DD Sonawadi Pump house-1
11 KV Sub Stations	20	WD-4, GR-2, SUR-6, KWV-3, LUR-1, PVR-1, ANG-1, PB-1, SNSI-1
Electrical Pumps	340	Major pump house at WD (90 HP)-2, WD (30HP)- 2, Daund (200HP)-2, DD (150HP)-1 , Other small pumps-333
D.G. Sets (Major)	27	SUR-5, KWV-1, PVR-2, DD-3, WD-2, SDB-1, KLBG-2, BBD-1, TJSP-1, ANG-3, PB-1, KPG-1, SNSI-2, LUR-1, BAP-1
A.C. Units Window Type	41	SUR-8, WD-5, KLBG-5, KWV-4, PVR- 4, LUR-5, DD-6, ANG- 4
A.C. Units Split Type	370	SUR-202, WD-37, KLBG-11, HG-6, KWV-15, PVR- 2, LUR-22, DD-38, ANG- 5, PB-10, KPG-1, SNSI-21
Water coolers	102	SUR-23, WD-10, SDB-2, KLBG-7, GUR-2, DUD-1, AKOR-2, HG-1, KWV-10, PVR-3, BTW-1, UMD-1, LUR-4, JEUR-1, BGVN-1, DD-12, ANG-6, RRI-1, BAP-3, PB-1, KPG-3, SNSI-7
Refrigerators	27	27- At Various sites
Transformers	58	WD-11, GR-4, SUR-13, KWV-10, DD-14, ANG-2, SNSI-2, PB-2
2.1 KVA portable generators	84	At Various sites
High Mast	101	ANG-5, RRI-3, BAP-3, SNSI-2, KPG-3, YL-4, DD-12, BGVN-4, BRB-2, MLM-2, JNTR-2, PRWD-2, WSB-2, PPJ-3, KWV-2, PVR-3, UMD-3, LUR-3, BTW-2, SUR-18, BALE-3, HG-1, KLBG-6, GUR-1, WD-7, TJSP-3
Centralized Air Cooling Units	02	SUR-2
Nos. of Escalators	06	Gulbarga-2, SUR-2, ANG-2
Nos. of Lifts	08	Daund-4, SUR-2, SNSI-2
Stations having T.L. Battery Charging facilities (Total charging points- 575).	09	WD-53, SUR-188, KWV-13, DD-140, LUR-30, PVR-31, SNSI-46, ANG-6, KLBG-68
Stations having A/C coach pre-cooling arrangements (Total pre-cooling - 212).	09	WD-15, SUR-83, KWV-2, DD-26, LUR-8, PVR-10, SNSI-24, ANG-1, KLBG-43

SUPPLY POINTS

Items	Nos.
HT Supply (consumer nos.)	18
LT Supply (consumer nos.)	300
Direct Connections	1045

STAND-BY SUPPLY

Items	Nos.	Location
At stations by generator (capacity ranging from 20 to 320 KVA)	27	SUR-5, KWV-1, PVR-2, DD-3, WD-2, SDB-1, KLBG-2, BBD-1, TJSP-1, ANG-3, PB-1, KPG-1, SNSI-2, LUR-1, BAP-1
At PRS's by generators (2.1 KVA)	4	UMD-1, PVR-1, LUR-1, JEUR-1

NON-CONVENTIONAL SOURCES OF ENERGY

Items	Nos.	Details
Solar water heaters	20	WD-5, KLBG-1, SUR-08, LUR-1, DD-4, ANG-01
Solar Emergency lights by LED system (Standby)	36 89	Stations LC Gates
Solar Emergency Street lights	57	in Railway colonies
Solar Panel/ Solar Pump	02	PK, MO
10 kWp solar grid connecting system	01	SUR Rly Hospital

REWIRING OF STAFF QUARTERS

Item	Nos.
Total Nos. of Electrified Quarters	: 5197
No. of quarters due for rewiring	: 2987
Quarters rewired in (2020-21)	: 05

TRAIN LIGHTING MAINTENANCE & A.C. COACH MAINTENANCE

Depot Wise Holding:

Sr. No	Depot	SUR	DD	WD	KLBG	Total
1	AC coaches					
1.a	No. of LHB AC coaches	30	-	-	1	31
1.b	No. of SGAC coaches	22	-	-	-	22
1.c	No. of AC coaches Spare	3	-	-	-	3
	Total A	55	0	0	1	56
2	TL coaches					
2.a	No. of TL (SG) coaches in service	117	0	0	12	129
2.b	No. of TL (LHB) coaches in service	84				84
2.c	No. of TL coaches Spare	5	-	-	-	5
	Total B	206	0	0	12	218
3	Other coaches					
3.a	DEMU	30	0	0	0	30
3.b	Power Car	13	0	0	0	13
3.c	Other coaches (BDT+ Saloon)	5	6	6	0	17
	Total C	48	6	6	0	60
4	Grand Total(A+B+C)	309	6	6	13	334

Traction distribution

Main activity of TRD maintenance is covered from 06 nos. of established major TRD depots at YL, under construction SGRE, SGLA, PVR, PRWD, KWV, DUD & BTW alongwith one Remote Control Centre at SU of Overhead equipments, Power Supply Installation equipments, up keeping of Tower wagons and other infras breakdowns and other emergency & Co-ordination with State Electricity Board for un-interrupted power supply to

Depot wise TRD assets :

TRD DEPOT	KLBG	DD	BWD	ANG	BAP	YL	SGRE	KWV
TKM	244	104	69	87	81	81	93	165
RKM	78	59	54	68	62	54	81	83
Tower Wagon	DETC 200017 (8-wheeler)	DETC 190058 (8-wheeler)	PTL 201008 0079	BEML- 927-004 (8-wheeler)	PTL 201008 0075	DETC-222 (8-wheeler)	**	DETC 200057 (8-wheeler)
TSS	MR	DD	BWD	NNB	PDGN	KPG	SGRE #	KWV
SSP	KLBG HQR SDB WADI	DD-A BRB	SGND VPR RNJD	AKR ANG VL	BAP	PB YL	ARAG KVK JTRD	KEM DHS WDS MKPT
SP	**	MLM	KSTH	SRL RRI	CIT	ANK	MRJ DLGN	BLNI WKA

Under Construction by RE/SC & RVNL/PA

\$ Site location sought by RE/SC.

Electrification

In Solapur division in major sections electrification works are in progress. Details thereof are as under.
BGVN-KLBG section: RVNL has started electrification work of the section in two packages i.e. BGVN-SUR & SUR-KLBG.

Section	RKM	TKM	TSS	SP	SSP	OHE Depot	TW Shed
BGVN-SUR	160	385	3	3	9	3	3
SUR-KLBG	113	261	2	2	5	1	1

Further the section is again divided in parts as per priority.

Section	Agency	RKM	TDC
BGVN-WSB	RVNL	31	Commissioned on 13.11.2020
WSB-KWV	RVNL	48.96	Commissioned on 13.11.2020
KWV-MO	RVNL	47.78	Commissioned on 09.03.2021
MO-SUR	RVNL	32	August- 2021
SUR-DUD	RVNL	63	August- 2021
DUD-SVG	RVNL	37.2	Commissioned on 09.03.2021
SVG- KLBG	RVNL	12.88	Commissioned on 13.11.2020
KLBG-TJSP	RVNL	13	Commissioned on 13.11.2020

MRJ-KWV-LUR Section: -The electrification of MRJ-LUR section is allotted to CORE/SC. CORE/SC has started electrification work of the section.

Section	RKM	TKM	TSS	SP	SSP	OHE Depot	TW Shed
LUR-KWV-MRJ	377	413.8	6	8	14	6	6

Further the section is again divided in parts as per priority.

Section	Agency	RKM	TDC
MRJ-DLGN	CORE	63	Commissioned on 06.01.2020
DLGN-SGLA	CORE	44.9	Commissioned on 09.03.2021
SGLA-PVR	CORE	29.4	Commissioned on 09.03.2021
PVR-KWV	CORE	51	Commissioned on 09.03.2021
KWV-BTW	CORE	38	Sept-2021
BTW-LUR	CORE	149	March-2022

TRO

Details of Conversion training (DSL to AC Loco) in Solapur division.

Sr. No.	Depot	S/S	MOR	AC trained crew					Total Trained
				LPM	LPP	LPG	LPS	ALP	
1	Puntamba	111	104	5	2	48	2	46	103
2	Daund	436	358	46	26	106	14	158	350
3	Wadi	184	147	12	7	44	18	65	146
4	Solapur	280	250	54	9	53	12	116	244
5	KWV	160	143	12	15	39	4	67	137
Total	1171	1010	1002	129	59	290	50	452	980

Setting up of New Electric Loco Shed at Daund, Pune.

1	Name of Project	Setting up of New Electric Loco Shed at Daund, Pune.
2	Date of Award	07.11.2012
3	Original Contract Value	94.52 Crs.
4	Revised Contract Value	178 CR. (divisional vetting obtained, now under scrutiny by FA&CAO)
5	Value of work completed till 31/03/2021	65.21 Cr.
6	Balance Value of work	112.79 Crs.
7	% Physical Progress	36.63 %
8	% Financial Progress	40 %

SETTING UP OF RAIL COACH FACTORY AT LATUR

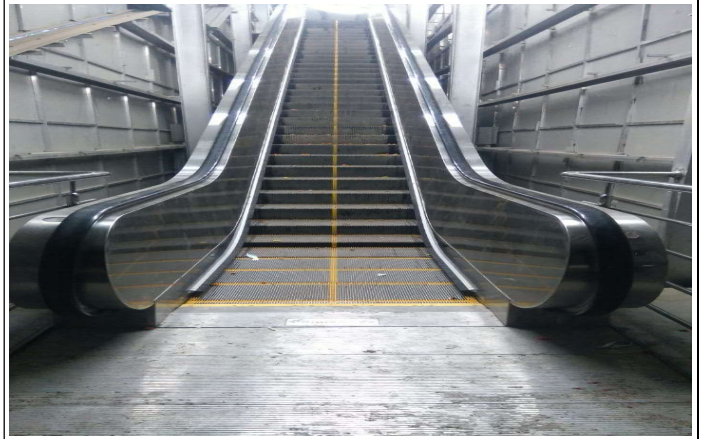
- EIG sanction for charging 11KV /25 KV Traction Sub-Station (TSS) in **Marathwada Rail Coach Factory, Latur** (MRCF/LUR) obtained on 10.03.2021
- EIG's sanction for energization of OHE with 25 KV AC at **Marathwada Rail Coach Factory (4.626 TKM)** obtained on 10.03.2021

Major Achievements on Electrical Department

1.	<p>i. Newly Electrified section-</p> <p>a) YL-ANK- CRS sanctioned is obtained for 15.59 TKM OHE UP Main line (15.01 TKM pertains to SUR division) between sections YL-ANK.</p> <p>b) CRS sanction obtained for Electrification of sections by RVNL/RE/Pune of sections KLBG-SVG (31.84 TKM), KLBG-TJSP (19 TKM), BGVN-WSB (34.5 TKM), WSB-KWV (95.51 TKM), KWV-MO (108.4 TKM), DUD-SVG (82.28 TKM)</p> <p>c) CRS sanction obtained for Electrification of sections by RE/SC of sections DLGN –PVR (TKM 82.6), PVR-KWV (53.55 TKM)</p> <p style="text-align: right;">Total TKM =522.779 TKM</p>
2	<p>Improvement in Passenger Amenity-</p> <p>i. 02 Nos. of escalators have been commissioned at Ahmednagar station in Feb-2020.</p> <p>ii. 01 No. of Monumental flag inaugurated at Ahmednagar station.</p> <p>iii. Improvement in illumination level at PVR, LUR, UMD, ANG, KPG & SNSI station work is completed.</p> <p>iv. At DD station, new wiring work of extended FOB from PF 6 to Railway colony work has been completed and 22 Nos. LED fitting 40 (w) has been provided.</p> <p>v. Sanitization and disinfection of all lifts and escalators with disinfectant like Lizol and Dettol is being done regularly to prevent spread of COVID-19.</p>
3	<p>Improvement in Electrical infrastructure facilities –</p> <p>i. 02 nos. of new 8 wheeler tower wagon has been commissioned.</p> <p>ii. Construction of New tower wagon shed has been completed at KLBG</p> <p>iii. All 06 Nos. of TSS of the division has been commissioned with E1 channel based SCADA for REMS work.</p> <p>iv. OHE sectioning between YL-ANK has been improved by erection of isolators on DN and UP line at (YL end) ANK station. This addition of isolator on main line facilitated the availability AC power supply at all lines at ANK station, thus making more power block margin between YL-ANK and also improved operation facility of AC traction.</p> <p>v. Height of contact wire (OHE) under ROB between BAP- PDGN has been increased to 5.15 m from 5.0 m to facilitate passage of DSDC.</p> <p>vi. HOG testing kit has been developed at coaching depot Solapur to test HOG complaint power cars.</p>

Photograph of Highlights

02 Nos. of escalators have been commissioned at Ahmednagar station in Feb-2020, which are helpful for aged, physically challenged and the general public.



Monumental flag is inaugurated at KLBG railway station



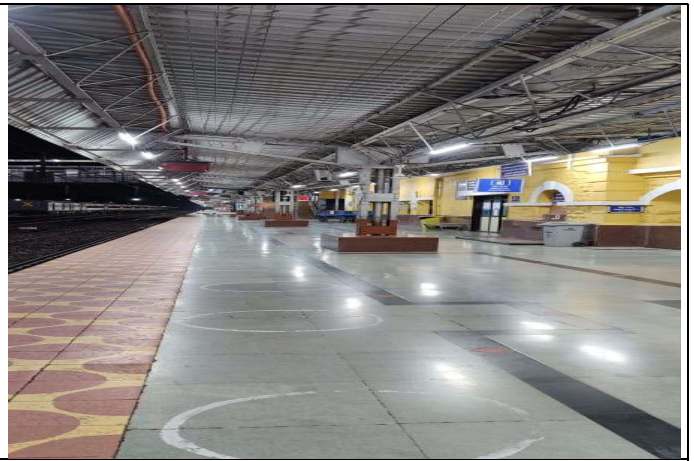
New 8 wheeler tower wagon has been commissioned at KLBG OHE depot.



Work of new tower wagon shed has been completed.



Improvement in illumination at ANG station
(PF No.1)



Development of HOG complaint Power Car Testing Kit:
The kit has been developed to test the working of HOG complaint power car at primary depot.



Commissioning of Parewadi TSS



Electrification of SVG -KLBG- TJSP section.

